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Business In Nebraska

August 1988
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Prepared by the Bureau of Business Research
200 College of Business Administration
University of Nebraska, Lincoln, NE 68588-0406
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Nebraska Population Changes Studied

The following is excerpted from a study by James R. Schmidt and Donald E. Pursell of the University of Nebraska-Lincoln.

Nebraska's population has expanded slowly since 1970. The 1970 population was 1,482,414. It swelled to 1,569,825 in 1980. According to estimates prepared by the U.S. Bureau of the Census, Nebraska's population continued to increase until 1984. There was no change in 1985 and a loss of 7,000 inhabitants between 1985 and 1986.

During the 1970-1985 span, Nebraska's population growth did not match the natural increase of population. Resident Nebraska births averaged around 25,000 yearly since 1970, and deaths averaged around 14,500 per year. Net outmigration was around 13,000 for the 1970s--it showed a marked jump in 1979 and 1980 as economic conditions worsened. According to the Bureau of the Census, net outmigration from Nebraska has grown in 1985 and 1986. Estimates are that over 10,600 more persons left in 1985 than entered, while approximately 16,700 more left in 1986 than entered Nebraska.

Projecting population can be a hazardous business. Projections are mechanical extrapolations of expected trends. They reflect simulations of mortality, fertility, and migration.

Mortality is the most readily measurable of the components. Mortality has changed little over the last twenty years, although there has been a slight lengthening of the life span. A slight decrease in mortality is projected, but its impact upon the population in the year 2000 is minimal.

Fertility will have a larger impact than mortality upon the population in the year 2000.

(continued on page 2)

Schmidt, Erickson to Assist

Lamphear to Head BBR

UNL economics professor F. Charles Lamphear has been appointed interim director of the Bureau of Business Research. Serving as acting associate director will be former Bureau research associate James R. Schmidt. Schmidt currently is an associate professor in the UNL economics department.

Lamphear and Schmidt say that the focus of Bureau projects will be various facets of the Nebraska economy. One of their first goals is to revitalize *Business in Nebraska*. Other plans include publication next winter of an in-depth study of the state's economic condition and installation of a telephone hotline for up-to-the-minute information.

Assisting Lamphear and Schmidt will be Merlin W., "Swede," Erickson, a well-known local consultant who has been tapped as statistical coordinator, a new spot at the Bureau of Business Research. Erickson was an agricultural economist with the Economics Research Service of the U.S. Department of Agriculture.

The faculty, staff, and administration of the College of Business Administration salute Don Pursell for his years of service. During his tenure at the Bureau of Business Research, Don has made a significant contribution to the state.

In his new slot, Don will continue to work with the Bureau and the College, as well as with the Food Processing Center, the Medical Center, and other University departments.

We wish Don the best of luck in his new position and thank him for all his hard work during the last twelve years.

Gary Schwendiman, Dean
UN-L College of Business Administration

Pursell Named to New Economic Development Position

To match the national trend of university involvement in economic development, the University of Nebraska named Don Pursell as its economic development coordinator on August 1.

The first task of this one-man, state-funded post will be to inventory all University economic development programs currently in place. No research will be conducted initially.

The long-term goals of the position are not clearly defined, but Pursell says his mission is to improve Nebraska income and employment growth through economic diversification.

Population (continued)

Fertility in Nebraska is similar to national trends. Since 1980, it has declined by slightly less than 5.0 percent. Fertility is expected to continue to drop slowly between now and the year 2000. In Nebraska, the most important variable is not the fertility rate, but the number of young persons age 20 through 34. Fertility rates could vary by as much as 2.0 percent by the year 2000, depending upon the rate of migration.

Migration is the component of change that will have the largest impact upon Nebraska's population in the year 2000. Net outmigration rates are larger for persons age 20 through 29 than any other group. Even during the 1970s when conditions were more favorable for holding young persons, there was a net movement from Nebraska. This trend has accelerated in the 1980s.

The Nebraska economy will be a critical factor in determining the rate of net outmigration during the next decade. The economy of the 1980s has not been sufficient to stem the draining tide of outmigration. Continued farm sector instability will not affect net outmigration favorably.

Population in Nebraska is not expected to increase over the next decade without much stronger economic growth in the state. Net outmigration, particularly severe in the 20 to 29 age group, will continue to occur. This pattern repeats the experience of the 1960s and 1970s when a variety of economic and social conditions were encountered but net outmigration persisted.

Nebraska Business Conditions

The Bureau of Business Research maintains current and historical records of Nebraska state population, retail sales, state personal income, population by city and county, employment, and other databases.

For additional information, call statistical technician David D. DeFruiter at the Bureau of Business Research, 402/472-2334. Office hours during the fall and spring semesters are 8:00 to 12:00 and 1:00 to 5:00.

PRICE INDEXES
June 1988

	Index	Percent of Same Month Last Year
Consumer Prices (1982-84 = 100)	118.0	103.9
Commodity Component	111.1	103.2
Wholesale Prices (1982 = 100)	107.9	102.3
Agricultural Prices (1977 = 100)		
United States	159.0	106.9
Nebraska	154.0	111.6

* Using arithmetic average of monthly indexes
Sources: Consumer and Wholesale Prices: U.S. Bureau of Labor Statistics
Agricultural Prices: U.S. Department of Agriculture

NET TAXABLE RETAIL SALES
of
NEBRASKA REGIONS AND CITIES

Region Number and City*	City Sales * April 1988 as Percent of April 1987	Sales In Region * April 1988 as Percent of April 1987	Sales In Region * 1988 to Date as Percent of 1987 to Date
The State	103.0	105.4	113.3
1 Omaha	102.2	103.9	109.4
Bellevue	97.9		
Blair	114.2		
2 Lincoln	107.4	111.2	114.8
3 South Sioux City	110.1	112.4	136.2
4 Nebraska City	106.9	107.9	111.7
6 Fremont	113.0	113.6	119.1
West Point	123.4		
7 Falls City	108.8	111.9	111.5
8 Seward	120.9	114.0	115.6
9 York	115.0	108.8	115.0
10 Columbus	119.5	115.9	117.0
11 Norfolk	123.4	120.1	119.9
Wayne	121.2		
12 Grand Island	107.1	108.3	118.8
13 Hastings	106.9	110.0	113.4
14 Beatrice	112.7	118.3	113.4
Fairbury	147.2		
15 Kearney	136.8	129.6	123.4
16 Lexington	134.8	120.9	126.1
17 Holdrege	112.7	108.7	118.4
18 North Platte	118.3	119.0	120.6
19 Ogallala	108.7	115.6	116.0
20 McCook	125.9	121.8	126.9
21 Sidney	95.9	104.0	109.8
Kimball	113.2		
22 Scottsbluff/Gering	94.7	108.2	108.9
23 Alliance	104.3	106.2	115.5
Chadron	91.6		
24 O'Neill	118.9	113.6	119.7
25 Hartington	117.9	106.1	114.5
26 Broken Bow	117.7	121.6	128.0

* Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales; city totals exclude motor vehicle sales.
Compiled from data provided by Nebraska Department of Revenue

CITY BUSINESS INDICATORS
April 1988
Percent of Same Month One Year Ago

The State and Its Trading Centers	Employment (1)	Building Activity (2)	Power Consumption (3)
The State	93.6	120.3	92.4
Alliance	97.0	50.4	91.4
Beatrice	98.9	113.1	101.6
Bellevue	100.8	84.7	50.0
Blair	101.5	14.8	103.2
Broken Bow	95.3	227.7	87.3
Chadron	98.0	38.4	94.7
Columbus	102.2	132.7	103.6
Fairbury	100.3	3067.8	85.9
Falls City	98.0	96.5	96.4
Fremont	99.2	84.3	44.0
Grand Island	69.1	175.1	89.2
Hastings	95.8	178.7	64.1
Holdrege	96.1	178.1	91.7
Kearney	98.4	340.8	78.2
Lexington	95.5	288.3	126.2
Lincoln	91.7	163.5	100.7
McCook	96.8	1060.7	82.7
Nebraska City	95.9	94.0	95.9
Norfolk	102.5	95.1	88.7
North Platte	94.2	89.2	38.8
Omaha	100.8	95.7	105.5
Scottsbluff/Gering	94.6	105.6	103.8
Seward	97.1	84.1	106.5
Sidney	95.4	206.8	41.8
South Sioux City	95.2	99.2	95.9
York	0.0	150.2	100.8

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used.
(2) Building Activity is the value of building permits issued as spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.
(3) Power Consumption is a combined index of consumption of electricity and natural gas except in cases marked * for which only one is used.
Sources: Labor Market Information Division of the Nebraska Department of Labor and reports from private and public agencies.

Business in Nebraska

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Association for University Business & Economic Research

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The Nebraska Worker: A Profile In Employment Growth

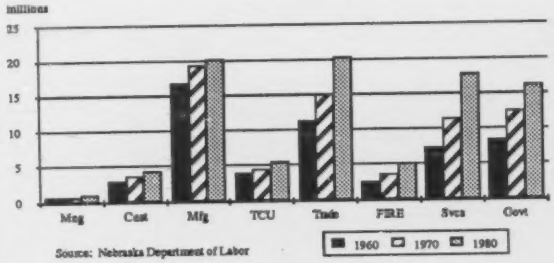
"I think most of us are looking for a calling, not a job. Most of us have jobs that are too small for our spirit. Jobs are not big enough for people." Nora Watson, editor ... excerpted from ***Working*** *by Studs Terkel, Random House, 1974.*

This article examines some major industry and demographic changes in Nebraska since 1960 and compares them to national trends. In general, Nebraska reflects the nation. There are, however, two notable exceptions. On the economic side, Nebraska manufacturing is underrepresented. On the demographic side, Nebraska men and women have labor force participation rates higher than their national counterparts.—

Industry Changes

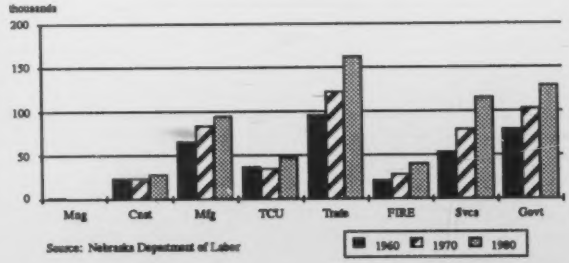
Industry Mix. In charts 1 and 2, a breakdown of both the United States and Nebraska employment by broad industry groupings is presented. Overall, the similarities are striking. The most notable exception is in the relative size of the manufacturing component. Nebraska's employment in manufacturing compared to total state employment is underrepresented by national standards. This is of some concern because manufacturing generally provides high wages and skilled occupations. For Nebraska, 1987 average hourly earnings in services, where Nebraska is well represented, were $6.63. For manufacturing, they were $9.34, or 40 percent higher. Furthermore, about two-thirds of Nebraska's nondurable manufacturing is related to food processing, a relatively low wage industry compared to other manufacturing activities.

Chart 1
U.S. Employment by Industry
— 1960 - 1970 - 1980



Source: Nebraska Department of Labor

Chart 2
Nebraska Employment by Industry
1960 - 1970 - 1980



Source: Nebraska Department of Labor

In This Issue . . .

In this edition of *Business in Nebraska*, we have introduced some new features and expanded some of your long-standing favorites. Here are some of the highlights.

Feature article..... 1
County of the month..... 2
Review and outlook..... 4
Terms to know..... 5
Bureau personnel notes..... 8
Economic scoreboard..... 8

Industrial Shifts. A common way to view industry change is to examine shifts in employment. Chart 3 presents changes in the employment by industry from 1960 to 1980. Two features of this display go against the common wisdom about Nebraska. First, the rate of growth in manufacturing employment for the state was more than double that of the nation, but this growth was still inadequate to eliminate the underrepresentation noted earlier. Second, the rate of growth in service employment, although more than doubling over the twenty year period, lagged behind the national growth rate. Growth in other service-related sec-

(continued on page 2)

County of the Month

Scotts Bluff

Size of county: 745 square miles, ranks 31st in the state
Population: 37,900 (estimated) in 1986, 38,344 in 1980, ranks 5th in the state, percent change 1980-1986 -1.2%
Per capita personal income: $12,393 in 1986, ranks 64th in the state
Unemployment rate: 8.7% in Scotts Bluff county, 4.9% in Nebraska in 1987
Net taxable retail sales ($000, unadjusted for inflation): $214,317 in 1986, $221,963 in 1987, $18,724 in May 1988, May 1988 as a percent of May 1987 = 104.4%

Nonfarm employment:	State	Scotts Bluff County
Wage & salary workers	659,223	13,640
	-----(percent of total)-----	
Manufacturing	13.3%	13.2%
Construction & Mining	3.9	2.9
Transportation, Communication, and Utilities	6.5	8.1
Retail Trade	18.7	22.6
Wholesale Trade	7.1	7.5
Finance, Insurance, and Real Estate	7.3	5.1
Services	22.7	21.6
Government	20.5	19.0
Total	100.0	100.0

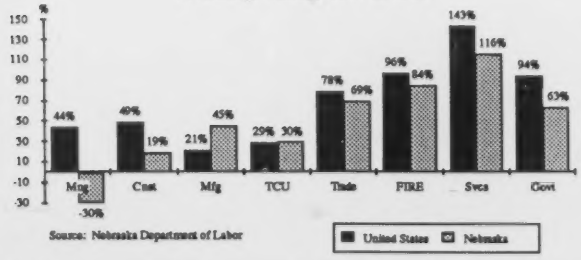
Agriculture:
Number of farms: 987 in 1982, 1,078 in 1978
Average farm size: 468 acres in 1982
Market value of farm products sold: $184 million in 1982 ($186,400 average per farm)

Sources:
U.S. Department of Commerce, *Area Measurement Reports*, 1970
U.S. Department of Commerce, Bureau of the Census, Series P-26, No. 86-A, August 1987, *Provisional Estimates of the Population of Counties, July 1, 1986*
U.S. Department of Commerce, Bureau of Census, *1980 Census of Population*, Chapter C, Part 29, Nebraska
U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, April 1988, Volume 68, Number 4
Nebraska Department of Labor, *Nebraska Labor Market Information Quarterly, Summary Report, 1987*
U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture*, Volume 1, Part 27, 1982

M.W.E.

(continued from page 1)

Chart 3
Employment Shifts
Percentage Change 1960 to 1980



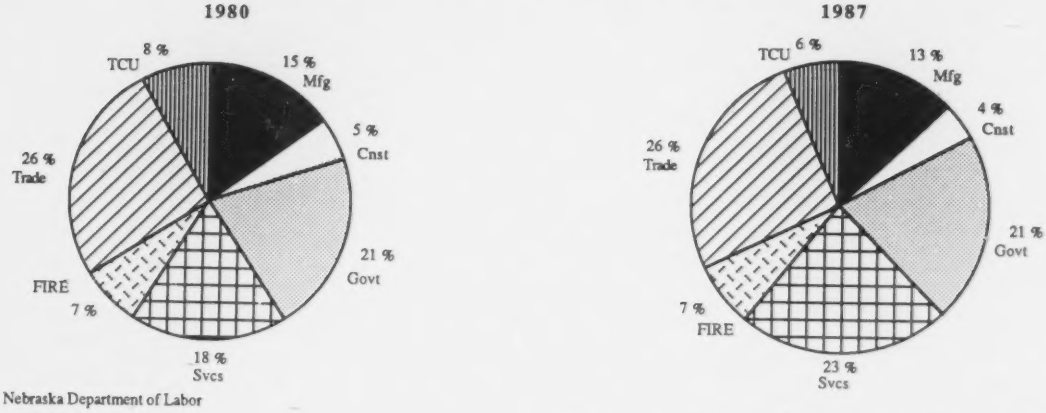
tors—transportation, communication, and utilities (TCU); trade; and finance, insurance, and real estate (FIRE)—were close to the national rates. Government employment growth lagged well behind national levels.

A look at recent years shows that the service sector in Nebraska continued its rapid growth. Figure 1 shows the breakdown of the employment by industry in 1980 and 1987. The service sector has grown from 18 percent to 23 percent of the total. The trade, government, and FIRE shares are virtually unchanged. All other sectors lost shares to the service sector. Manufacturing, for example, dropped two percentage points, from 15 percent to 13 percent, in 1987. This relative shift from manufacturing to service employment means that higher paying jobs were giving way to lower paying jobs. In 1987, the average weekly wage in the service industries in Nebraska was $212.16, while in manufacturing it was $378.27. Moreover, fewer hours worked is a pattern common to the service industry, reflecting the growth of part-time employment. Part-time employment is defined as less than 35 hours per week. In 1976, about 93 percent worked full time. Many full-time job seekers had to settle for part-time work involuntarily.

Occupation Shifts. A second way to view industry change is to look at occupational shifts. Growth in Nebraska occupations is seen across the board with the exception of farm employment

(continued on page 3)

Figure 1
Nebraska Employment by Industry, 1980 and 1987



Source: Nebraska Department of Labor

(continued from page 2)

(see chart 4). All other employment areas except crafts grew by over 50 percent from 1960 to 1980. TCU and services grew by over 100 percent in the same period.

As impressive as some of these gains were, Nebraska did not keep pace with national trends in all areas. Although the Nebraska increases from 1960 to 1980 reflected the national trends for service, TCU, and farm employment, in all other occupation groups Nebraska's growth was less than its national counterpart. For the twenty year period Nebraska grew by 51 percent in professional/managerial category while the nation grew at 78 percent; in sales Nebraska grew 64 percent, the nation 114 percent; in clerical Nebraska grew 56 percent, the nation 83 percent; in crafts Nebraska grew 8 percent, the nation 35 percent.

Demographic Changes

Women Workers. With fewer high paying full-time jobs available, the number of persons entering the labor force to supplement the family income has grown. Nationwide, the number of mothers with young children who are employed outside the home is up from 30 percent in 1970 to 54 percent in 1985. The full-time parent not employed outside the home is a vanishing species.

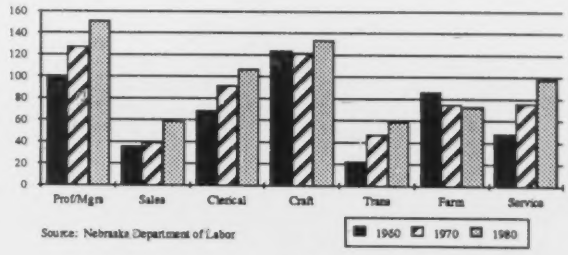
Nebraska participation rates, shown in chart 5, mirror trends in the U.S. economy. Two differences are notable. First, Nebraska women participated both at a greater rate and at a greater rate of gain in participation than United States women. The national participation rates for women were approximately 38 percent in 1960 and 57 percent in 1987. Those numbers imply a gain of only 51 percent nationwide compared to an 80 percent gain for Nebraska women. Second, Nebraska men had participation rates higher than national rates and showed a slight increase from 1960 to 1987, while men's participation rates have dropped nationally.

Migration. Workers are migrating in growing numbers to the state's metropolitan areas. Nebraska's metropolitan counties (Lancaster, Douglas, Sarpy, and Washington) account for 57 percent of all nonfarm jobs. Over a ten year period, job growth was over 20 percent in the metropolitan areas. Other nonmetropolitan counties with less diverse economies have become less able to provide careers for successive generations of Nebraskans.

Aging Employment. As in the nation, Nebraska's baby boomers are entering middle age. The implication here is that the number of young adults available for entry-level jobs is a diminishing share of the population. Critical to Nebraska's future will be its ability to retain these workers.

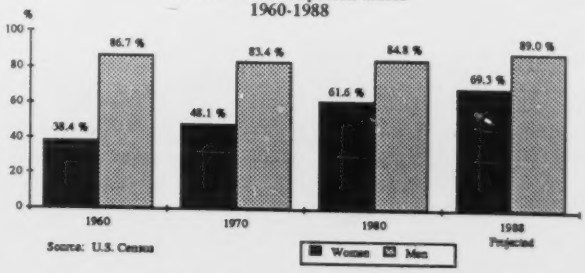
The number of older workers will increase in Nebraska and nationwide, creating a need for job advancement opportunities, adequate compensation, and job quality. A more mature, experienced, and educated employment, in turn, will up the demand for job training and career development. The spiraling competition of the domestic and international economy will heighten the emphasis on job benefits and retirement planning.

Chart 4
Nebraska Employment by Occupation
1960 - 1970 - 1980



Source: Nebraska Department of Labor

Chart 5
Nebraska Participation Rates
1960-1988



Source: U.S. Census

This article was condensed by the Bureau research staff from an unpublished report by Tom Maloney, Research Supervisor, Nebraska Department of Labor.

CITY BUSINESS INDICATORS
Percent of Same Month One Year Ago
MAY 1988

The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	101.1	121.2
Alliance	100.6	45.7
Beatrice	101.3	263.8
Bellevue	101.2	106.9
Blair	101.2	23.8
Broken Bow	102.2	191.5
Chadron	101.3	47.8
Columbus	103.7	172.7
Fairbury	101.9	2618.4
Falls City	100.8	88.8
Fremont	101.0	78.4
Grand Island	100.6	185.5
Hastings	99.9	185.2
Holdrege	101.4	119.1
Kearney	100.3	291.4
Lexington	100.3	355.1
Lincoln	100.7	151.2
McCook	100.5	876.3
Nebraska City	101.4	78.9
Norfolk	100.9	131.3
North Platte	100.3	86.4
Omaha	101.2	99.6
Scottsbluff/Gering	100.4	93.6
Seward	99.5	56.7
Sidney	100.6	206.8
South Sioux City	99.5	100.5
York	100.6	98.6

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used.
(2) Building Activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Construction Cost Index is used to adjust construction activity for price changes.
Sources: Labor Market Information Division of the Nebraska Department of Labor and reports from private and public agencies.

Review and Outlook

National Outlook

The national economy grew steadily in the first half of the year. The annualized rates of increase of real GNP for the first and second quarters were 3.4 percent and 3.3 percent respectively. Such growth rates are strong for an economy that has been expanding for so long. Most economic forecasters predict that the economy for the year as a whole will expand at about the first half's rate, with growth slowing next year to about 2.0 percent.

The Consumer Price Index for July was released amidst the election year hoopla given by the press to economic data. It rose 4.1 percent from last year and roughly 5.1 percent at annual rates from June of this year. Although both rates exceed the 3.7 percent annual rise experienced in 1987, a new catastrophic inflationary spiral is not imminent. The 4.1 percent rise versus a year ago is equal to the average of year ago changes experienced for the last twelve months.

The broadest measure of producer prices, finished goods prices, jumped 2.4 percent in July from a year ago. For the same period, intermediate materials increased 6.0 percent, signaling an area that should be watched for increased inflationary pressure. Crude material prices obscured the inflation issue. They were up 1.0 percent from July 1987, but were below both the May and June levels of this year. Clear evidence of an inflationary surge is not shown by producer prices at this time.

Nebraska Outlook

July unemployment data show a continued healthy picture for the state. The unemployment rate for July stood at 3.4 percent, well below the year ago level of 4.7 percent and only one-tenth of a percentage point higher than April, May, and June 1988 levels. Nebraska unemployment is substantially below the U.S. July average of 5.4 percent.

Nebraska total personal income increased 3.0 percent in the first quarter 1988 versus the previous year but dropped from the previous quarter. This confusion is cleared by looking at the farm and nonfarm elements. Farm personal income exploded in the fourth quarter of last year, increasing 260.0 percent above the third quarter. The timing of government deficiency payments caused the surge. Personal farm income then was cut in half in the first quarter of this year.

In contrast, nonfarm personal income has been growing steadily, showing an increase of 4.7 percent for the first quarter of this year versus last. At that rate, personal income is expanding slightly faster than inflation as measured by the CPI. Nonfarm Nebraskans are increasing their purchasing power.

The careful reader may have noticed a seeming inconsistency between the Nebraska net taxable retail sales data and personal income and employment data. Part of the problem is that the data are reported on different time periods and from different sources.

Nonfarm personal income and employment data suggest moderate improvements in the Nebraska economy, while the re-

(continued on page 5)

Review (continued)

tail sales figures indicate a boom. The retail sales figures imply that Nebraskans are participating in a national surge in auto sales.

Nationwide, from May 1987 to May 1988, total auto units sold increased by 9.8 percent while domestic light truck sales gained 17.4 percent. Nebraska motor vehicle retail sales soared 18.1 percent in May 1988 compared to the previous year. On a year-to-date basis, the change was an even larger 28.6 percent, through May 1988 versus a year ago. The lagged effect of the surge in farm personal income in the fourth quarter of 1987 may be a key element influencing Nebraska auto and truck sales. It is likely that the boom in motor vehicle sales will not be sustainable. Net retail sales should return to a less torrid pace.

J.S.A.

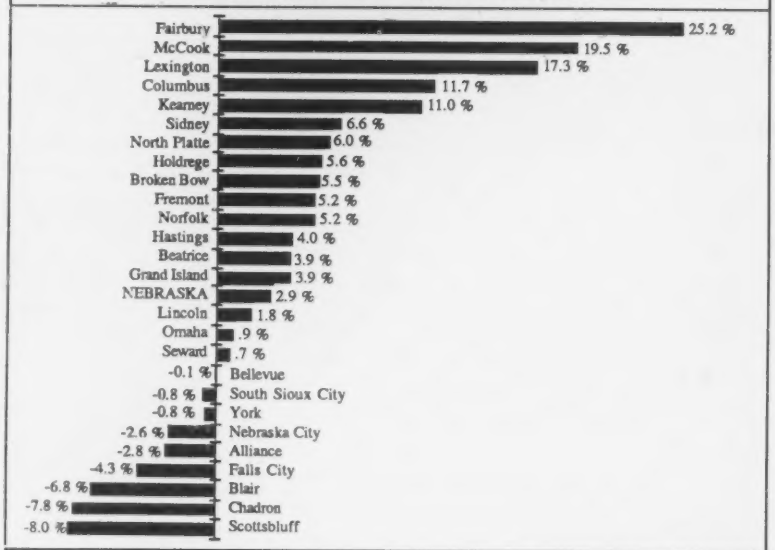
Terms to Know.....

Seasonally Adjusted at Annual Rates (SAAR)

Economic data collected at a frequency less than annual can be subject to seasonal patterns that persist from year to year. The classic example is retail sales measured on either a monthly or quarterly basis. Typically, sales are highest in December or the fourth quarter. Employment figures collected on a monthly basis are another example where persistent seasonal patterns are common. Comparison of contiguous periods of data that contain seasonal patterns can be misleading. Such data can be seasonally adjusted by special statistical techniques that smooth seasonal patterns. The "annual rate" portion of the term signifies that the value reported for the particular period is the value that would occur if the activity level of the period applied to the entire year. For example, the $23,359 million value of Nebraska personal income in the first quarter of 1988 is the value that would be posted for all of 1988 if the first quarter seasonally adjusted activity level was sustained throughout the year.

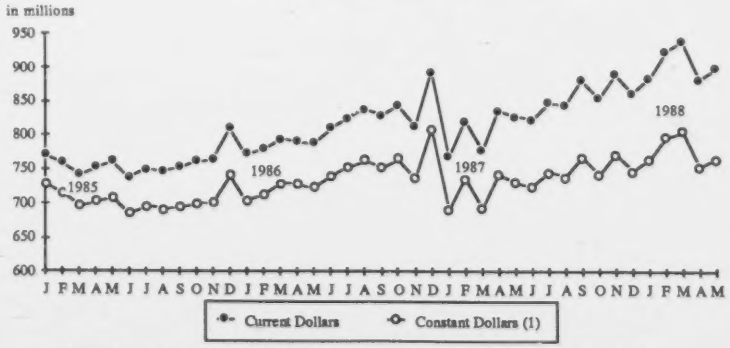
J.R.S.

CITY BUSINESS INDEX
Percentage Change from May 1987 to May 1988



PRICE INDICES	July 1988	Percent of July 1987	1 - 7 /88 as Percent of 1 - 7 /87
Consumer Price Index - U* (1982-84 = 100)			
All Items	118.5	104.1%	104.1%
Commodities	111.5	103.6%	103.5%
Services	126.1	104.6%	104.6%
Producer Price Index (1982 = 100)			
Finished Goods	108.5	102.4%	102.1%
Intermediate Materials	108.2	106.0%	105.5%
Crude Materials	97	101.0%	103.6%
Ag Prices Received (1977 = 100)			
Nebraska	154	114.1%	110.1%
Crops	144	163.6%	125.8%
Livestock	160	97.0%	104.6%
United States	142	110.1%	106.7%
Crops	136	125.9%	113.8%
Livestock	147	99.3%	101.7%
* U = All Urban Consumers			

NEBRASKA NET TAXABLE RETAIL SALES
(seasonally adjusted)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars.

NET TAXABLE RETAIL SALES OF NEBRASKA REGIONS AND CITIES

Region Number and Cities (1)	City Sales (2) May 1988 in Thousands	City Sales (2) % of May 1987	Region Sales (2) May 1988 in Thousands	Region Sales (2) % of May 1987	Region Sales (2) 1- 5 /88 as % of 1-5 /87
NEBRASKA	$ 766,818	106.6	$ 895,256	108.1	112.2
1 Omaha	266,990	104.3	339,036	105.1	108.5
Bellevue	11,915	101.1	*	*	*
Blair	4,317	102.4	*	*	*
2 Lincoln	99,673	102.2	119,573	106.2	113.0
3 South Sioux City	3,980	101.9	5,996	107.9	129.5
4 Nebraska City	3,380	98.6	16,428	104.5	110.2
6 Fremont	14,505	117.2	26,587	113.7	117.9
West Point	2,449	115.7	*	*	*
7 Falls City	2,060	94.0	8,511	100.8	109.2
8 Seward	3,540	111.9	12,323	102.4	112.9
9 York	5,510	100.9	12,377	101.7	112.2
10 Columbus	14,429	120.7	25,098	115.5	116.7
11 Norfolk	16,020	111.5	29,400	110.1	117.8
Wayne	2,561	107.2	*	*	*
12 Grand Island	29,381	104.9	42,540	109.2	116.6
13 Hastings	13,610	105.9	22,293	104.0	111.4
14 Beatrice	6,718	100.3	15,673	106.1	112.1
Fairbury	2,436	123.4	*	*	*
15 Kearney	16,812	116.7	24,088	112.8	121.0
16 Lexington	5,163	129.0	14,426	115.3	123.8
17 Holdrege	4,330	113.1	7,682	106.7	115.7
18 North Platte	15,917	118.6	19,138	111.9	118.5
19 Ogallala	4,883	100.1	9,937	101.2	112.6
20 McCook	7,552	123.7	10,421	114.0	124.0
21 Sidney	3,899	110.0	7,908	113.0	110.5
Kimball	1,839	117.9	*	*	*
22 Scottsbluff/Gering	12,413	85.1	21,500	102.7	107.5
23 Alliance	5,002	105.2	13,026	104.0	112.9
Chadron	2,571	92.2	*	*	*
24 O'Neill	3,671	97.7	12,277	105.2	116.2
Valentine	2,313	98.8	*	*	*
25 Hartington	1,347	112.7	7,078	96.8	110.7
26 Broken Bow	3,117	106.5	10,728	111.7	124.3

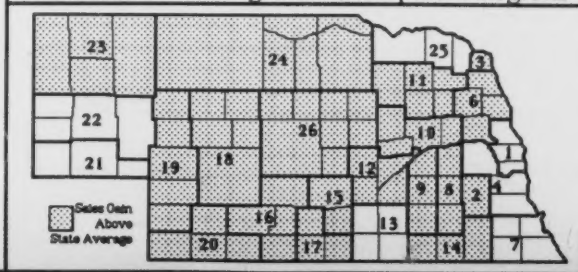
(1) See region map to the right.

(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales. City totals exclude motor vehicle sales.

* Within an already designated region.

Compiled from data provided by Nebraska Department of Revenue.

1988 YTD as % of 1987 YTD in Nebraska's Planning and Development Regions



EMPLOYMENT IN NEBRASKA

Source	Preliminary July 1988	Revised June 1988	July 1987	July 1988 as Percent of July 1987
Place of Work				
Nonfarm	664,436	673,239	655,969	101.3%
Manufacturing	92,971	93,070	89,121	104.3%
Durable Goods	46,285	46,481	43,761	105.8%
Nondurable Goods	46,686	46,589	45,360	102.9%
Mining	1,862	1,857	1,772	105.1%
Construction	25,740	25,423	25,830	99.3%
Transportation, Communication & Utilities	44,234	43,871	42,742	103.5%
Trade	170,626	171,579	170,086	100.3%
Wholesale	48,404	48,428	47,095	102.8%
Retail	122,222	123,151	122,991	99.4%
Finance, Insurance & Real Estate	48,155	48,206	48,363	99.6%
Services	150,642	151,148	148,059	101.7%
Government	130,206	138,085	129,996	100.2%
Place of Residence				
Civilian Labor Force	817,501	821,861	810,638	
Unemployment Rate	3.4	3.3	4.7	

Source: Labor Market Information Division of Nebraska Department of Labor

INCOME AND EARNINGS IN NEBRASKA (1)
(millions of dollars)

	First Quarter 1987	Second Quarter 1987	Third Quarter 1987	Fourth Quarter 1987	First Quarter 1988	1988:I as percent of 1987:I
Income						
Total Personal Income	$22,669	$21,926	$21,903	$24,861	$23,359	103.0%
Nonfarm	20,534	20,648	20,915	21,299	21,501	104.7%
Farm	2,135	1,278	988	3,562	1,858	87.0%
Earnings by Industry (2)						
Ag. Services, Forestry & Fisheries	102	97	95	100	108	105.9%
Mining	71	75	78	80	80	112.7%
Construction	990	921	909	948	986	99.6%
Manufacturing	2,122	2,133	2,196	2,249	2,270	107.0%
Nondurable	1,037	1,056	1,078	1,108	1,110	107.0%
Durable	1,085	1,076	1,118	1,141	1,160	106.9%
Transportation & Public Utilities	1,549	1,547	1,565	1,564	1,563	100.9%
Wholesale Trade	1,111	1,114	1,134	1,146	1,170	105.3%
Retail Trade	1,537	1,557	1,567	1,568	1,583	103.0%
Finance, Insurance & Real Estate	1,214	1,204	1,227	1,231	1,249	102.9%
Services	3,083	3,131	3,197	3,248	3,218	104.4%
Government	2,888	2,923	2,942	3,009	3,070	106.3%
Federal, Civilian	447	442	448	456	460	102.9%
Military	394	396	398	396	404	102.5%
State & Local	2,047	2,085	2,096	2,157	2,206	107.8%

(1) All data are seasonally adjusted at annual rates.
(2) Earnings is the sum of wages and salaries, other labor income, and income earned by sole proprietors.

Bureau Personnel Notes:

Charles Lamphear & James Schmidt

One need not be an economist to know that irrigation has a tremendous impact on Nebraska's economy. Knowing just what that impact is, however, could be an asset to the state.

This fall the Bureau of Business Research will undertake a study to measure the economic impact of irrigation on Nebraska's economy. Heading the research team is Dr. F. Charles Lamphear, interim director of the Bureau and professor of economics in the UN-L College of Business Administration.

Few scholars could be more well-suited to the task. Dr. Lamphear is a nationally prominent expert in socioeconomic impact assessment—evaluating how an event affecting the environment in turn can alter the economic climate of a region. Lamphear has studied drought, hurricanes, and oil spills. He has published numerous papers on Nebraska's economy as it is affected by irrigation and ground water supply and on cropping patterns and weather variability.

Another project beginning at the Bureau is to develop an econometric model of Nebraska's economy. Such a model will become a useful tool in forecasting the effects of changes in the major factors in the economy.

"An econometric model will allow us to make predictions about the impact on the economy from state and national events," says Dr. James R. Schmidt, acting associate director of the Bureau and associate professor of economics. The model will allow the Bureau to make regular forecasts in *Business in Nebraska*.

The development of the model also will lead to a "state of the state" report to be published early in 1989.

N.W.

BB Scoreboard

Percent of same month one year ago

	State	Metro	Nonmetro
Motor Vehicle Sales (May)	↑	↑	↑
Building Activity (May)	↑	↑	↑
Nonmotor Vehicle Sales (May)	↑	↑	↑
Employment (July)	↑	↑	↑
Unemployment (July)	↓	↓	↓

Business in Nebraska

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University of Nebraska-Lincoln-- Martin Massengale, *Chancellor*
College of Business Administration--Gary Schwendiman, *Dean*

Bureau of Business Research
F. Charles Lamphear, *Interim Director*
James R. Schmidt, *Acting Associate Director*
Merlin W. Erickson, *Research Associate*
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John S. Austin, *Statistical Coordinator*
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Chickpeas in Southwestern Nebraska: Crop Diversification as an Economic Development Tool

In southwestern Nebraska, which traditionally carries wheat and barley on its dryland acreage, a move toward crop diversification is underway. Less traditional nonbase crops, such as soybeans, proso, sunflowers, and chickpeas (garbanzo beans), are being planted on a trial basis. This article examines the potential of one of these alternative crops (chickpeas) as a tool to strengthen a weakened rural economy.

Area residents see the diversification of agriculture and the creation of value-added agricultural products as their main vehicle for economic stabilization and development. The successful adoption of a nontraditional crop would provide both diversification and increased utilization of existing community resources (food and feed processors).

This research was conducted to assess the potential contribution of chickpeas as an alternative crop. Some local farmers already have made trial plantings. The crop appears to have three advantages: it yields higher per acre gross revenues; it is a nonprogram crop; and there are several area dry edible bean processors and feed processors whose facilities could be used to process value-added products from the crop.

Chickpeas are a drought-tolerant crop suited to growth on dryland acres. They need only about 20 inches of rain per year. They are the third most important pulse (grain legume) crop in the world, widely grown for their edible seed, and used worldwide for food. India grows almost 90 percent of the world's production, which was 6.2 million metric tons in 1982.

Demand and Supply

The U.S. chickpea market is characterized by steady demand, but no real growth. From 1982 - 1986, the average U.S. consumption of chickpeas (also called garbanzo beans or ceci beans) was 287,000 hundredweight (cwt) bags per year. On average, 85 percent of the U.S. demand during this period was met by garbanzos imported from Mexico. There is some importation of Turkish garbanzos on the east coast on a regional level. Table 1 shows annual production in thousands of cwt for domestic and foreign crops.

Table 1
U.S. Garbanzo Consumption by Year (in 1000 cwt), 1982 - 1986

Year	1982	1983	1984	1985	1986	Average 1982-86	Avg %
Imports	191	298	266	211	257	244.6	85
U.S. Production	60	47	19	39	48	42.6	15
Total Demand	251	345	285	250	305	287.2	100

Sources: *USDA Vegetable Situation & Outlook Report*, November 1987, Crop Production, Annual Summary, NASS, USDA, 2/87 and 1/88, and California Ag Statistics Bureau.

Right now there is little export demand for U.S.-grown garbanzos. The Mediterranean countries, which are the heaviest users, prefer a smaller, darker bean than the bean that currently is grown here. Some South American countries (particularly Venezuela, Peru, and Columbia) offer a potential market for the U.S. beans, and there is some demand for the beans in Taiwan, Japan, and Korea.

In years when native crops are in short supply, there could be a greater opportunity to export. These markets are new, however, and demand levels are not yet established. Also, U.S. growers usually will face a higher transportation cost in supplying these markets. American production has been decreasing because of disease problems in the main growing areas (wilt in California and blight in Idaho). New resistant varieties are being developed, but at the current time there is no established high volume production area in the U.S. Western Nebraska offers a disease free growing site and an alternative to increasing dependence on imports.

Solomon Tuwafe of the Plant Science Department at South Dakota State University believes the Sidney-Grant-Ogallala area is a good spot for raising chickpeas. He has conducted several field tests in South Dakota and at least one at Sidney. The Sidney field test and subsequent farmer trials in other parts of southwest-

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County of the Month

Boyd

Size: 548 square miles, ranks 71st in size among Nebraska counties
Population (1987 estimate): 3,100, -6.8 percent change from 1980
Per capita personal income (1986): $11,008, 86th in the state
Unemployment rate (1987): 4.1 percent in Boyd County, 4.9 percent in Nebraska
Net taxable retail sales ($000, unadjusted for inflation): $8,064 in 1987, a change of +3.7 percent from 1986; $4,129 during January-June 1988, a change of +12.4 percent from the same period one year ago

Nonfarm employment (1987):	State	Boyd County
Wage & salary workers	659,233	596
	—(percent of total)—	
Manufacturing	13.3%	1.5%
Construction & Mining	3.9	1.3
TCU	6.5	7.6
Retail Trade	18.7	14.4
Wholesale Trade	7.1	9.2
FIRE	7.3	5.2
Services	22.7	11.6
Government	20.5	49.2
Total	100.0	100.0

Agriculture:
Number of farms: 442 in 1982, 476 in 1978
Average farm size (1982): 640 acres
Market value of farm products sold: $18.5 million in 1982 ($41,933 average per farm)

Sources:
Bureau of Census, *Area Measurement Reports*, 1970
Bureau of Census, *Census of Agriculture*, 1982
Bureau of Census, *Census of Population*, 1980
Bureau of Census, *Provisional Estimates of the Population of Counties*, 1986
Bureau of Economic Analysis, *Survey of Current Business*, April 1988
Nebraska Department of Labor, *Labor Market Summary Report*, 1987
Nebraska Department of Revenue, unpublished data.

M.W.E.

Chickpeas (continued)

ern Nebraska established that chickpeas can grow in this area of the state.

Market Channels

Buyers for garbanzos are located nationwide. These range from buyers of the raw beans to consumers purchasing value-added beans in the grocery store. Basically, there are buyers for two types of products: raw products and processed products.

Raw product buyers are most typically processors, packagers, or brokers. Processors buy beans from growers, clean, screen, size, and bag those beans and then resell them. Processors buy most of the beans growers have for sale. Although packagers and brokers generally buy the beans after they have been cleaned and bagged by the processors, they on occasion do make raw material purchases.

Processed product buyers can include processors, packagers, commodity brokers, canners, food brokers, and ultimately, retail consumers. On the first level, these buyers typically will be commodity brokers, packagers, or canners who are buying the raw beans in bulk or in 100 pound bags. The brokers usually will resell the beans just as they receive them to other brokers, to export markets, or to canners and packagers. The packagers repack the dried beans into one, two, four, ten, 20, and 25 pound bags for resale to food brokers and/or customers.

The canners typically process garbanzos into canned beans by soaking, cooking, bleaching, and otherwise preparing them for resale to food brokers or directly to their customers. Canners have high quality standards, so only the best beans will be accepted for canning. It is estimated that 60 percent of all garbanzos are canned, leaving 40 percent of the processed beans to be bagged and sold dried. There are approximately 50 canners of garbanzo beans in the country. The closest regional canner is in Iowa.

Once the beans are in packaged form (dry pack or canned (wet pack)), they will be resold by the packagers and/or brokers to wholesale, retail, and institutional food markets. A recent market research study from Arizona State University showed the distribution of chickpeas among the following market segments: 4 percent to retail, 9 percent to export, 14 percent to food service, 21 percent to packagers, and 52 percent to canners.

Margins usually run $3 - $5/cwt for processors (including the bag cost) and $0.50/cwt and up for brokers. Beans of canning quality carry a price premium, estimated at $2 - $4/cwt. Prices are currently at an ebb, running around $17/cwt to the grower and $21/cwt cleaned and bagged to the processor. (For comparison, see Table 2 for average California dealer prices for 1978 - 1987.)

In the U.S., the main use for the chickpea or garbanzo bean is in the salad bar trade. Usually first among the extras added to lettuce to establish a salad bar, the garbanzo bean enjoyed rapid growth in demand for several years in the early 1980s. The salad bar trade appears to be leveling, however, and new uses need to be found. There is a growing, although regionalized, demand for the beans in many ethnic markets on which an aggressive

Table 2
California Garbanzo Beans:
Monthly Average Dealer Prices per Cwt by Crop Year

Crop Year	Monthly Price Range High (Month)	Low (Month)	12 Month Average Dealer Price
1978-79	53.70 (Oct)	43.75 (Aug)	50.38
1979-80	42.75 (Sep)	34.58 (Aug)	37.71
1980-81	46.00 (Aug)	34.90 (Sep)	40.21
1981-82	50.12 (Nov)	40.50 (Aug)	47.45
1982-83	39.16 (Sep)	29.00 (Aug)	34.96
1983-84	33.50 (Dec)	28.50 (Jun)	30.61
1984-85	37.75 (Dec)	33.88 (Sep)	35.53
1985-86	40.00 (Feb)	30.50 (Jun)	34.77
1986-87	35.81 (Jan)	20.25 (Aug)	29.42

Source: Federal-State Market News Service, Stockton, CA.

marketing campaign could capitalize. Other uses of the garbanzo include a roasted snack food, a snack dip, a flour to be used in sweets, a binder in sausage, baby food, and a hot drink similar to coffee.

The human food market, however, is just one avenue of product sales. Several studies have been done that indicate that the potential use for chickpeas in the animal feed market may offer equally attractive opportunities for growers.

Use of Chickpeas for Feed

Although the nutrient composition can vary depending upon variety and environmental conditions, chickpeas have been shown to yield a high quality nutrient content for livestock feed. Chickpeas contain a high level of protein (about 21 percent), fat (5 percent), energy (85 percent - 98 percent total digestible nutrients), and fiber (7 percent). Thus, in the laboratory, chickpeas appear to be a high quality, well-balanced source of feed. The chickpea can be used for feeding swine and ruminants without cooking or heating.

Several independently administered experiments have demonstrated that the chickpea can be used to supply the major portion of both protein and energy for swine. Chickpeas have been used as a substitute for corn and soybean meal in the diet of growing Holstein heifers weighing 595 pounds. Chickpeas also have been fed successfully to Holstein-Friesian dairy cows to increase milk production.

In summary, chickpeas can be used to supply a large portion of both protein and energy needs for livestock and for up to 20 percent of the ration for poultry. Chickpeas can be used to supply 95 percent of the diet for sows and 89 percent of the ration for growing pigs without affecting growth and feed efficiency.

In these industries, chickpeas can be utilized when reliable, consistent supplies are available and when the price of the chickpea makes it the cheapest source of available protein. For most feed use, chickpeas would be priced on the basis of the value of their protein content, which would depend in part on the value of the protein source they replace.

Yield Estimation and Production Costs

Yield plots at Sidney in 1985 averaged about 2061 pounds per acre. This yield is comparable to that obtained by producers in established growing areas in Idaho and Washington. It should be noted that only about one half of the gross yield usually can be marketed as human food because the food market demands a strictly quality product. Quality means that the beans must be large in size, bright buff in color, have an absence of immature (green) beans, have no cracks or splits, be firm in texture but be edible and soakable, have no off taste, and must meet these requirements uniformly.

The problem of maintaining quality is the most important one facing growers in a new area such as southwestern Nebraska. A reputation for quality must be established early or processors and buyers will not be interested in buying those chickpeas for food. Thus, the exact percentage of a crop that will be purchased for human food consumption is likely to vary from grower to grower, from year to year, and from field to field. If rain falls when ripe chickpeas are in the field, none of the crop may meet the strict requirements of the human food market. Fortunately, the remaining portion of the crop not acceptable to the food segment can be used as livestock feed.

The estimated cost of producing an acre of chickpeas is $173, excluding land and management costs. (See Table 3.) The gross revenue per acre depends heavily upon the quantity and quality of beans produced and the market price for both food and feed. Under current conditions, a 2000 pound yield sent 50 percent to the food market @ $17/cwt and 50 percent to the feed market @ $125/ton (priced strictly as a protein source) would generate $232 per acre gross income and make a $59 per acre contribution to land, management, and overhead. This contribution could be increased to $127/acre if the feed could be fed to growing cattle weighing about 600 pounds to achieve higher daily gains and increase feed conversion.

A break-even calculation indicates that the grower would have to receive $8.65/cwt or $173/ton just to cover all nonland costs on a yield of 2000 pounds per acre. (See Table 4.)

Conclusions

This analysis of the chickpea market shows that there is a window of opportunity for Nebraska farmers interested in growing chickpeas. Before leaping through that window, however, growers carefully should assess what lies beneath the window ledge.

The Ledge

The current chickpea inventory level is at 31 percent of annual consumption or two years' worth of domestic production. This high level is due to crops being held because of low prices

Table 3
Estimated Cost of Producing an Acre of Dryland Chickpeas in Southwestern Nebraska

Item	$ Cost
Seed @ 150 lb/acre @ $.50/lb	75
Inoculation, Pesticide, Weed Control, Fertilizer	35
Tandem Disc	4
Chisel-Rod-Harrow	4
Plant	11
Rotary Hoe	2
2 Cultivations (If planted in 30" rows)	7
Combine	17
Truck	3
Hail Insurance	15
Total Nonland Costs	173

Table 4
Estimated Per Acre Dryland Contribution For Land, Management, and Overhead

I. Estimated gross revenue per acre assuming yield of 2000 pounds consisting of 50 percent for food market and 50 percent for livestock feed

	$ Return if Feed Worth:	
Item	$125/ton	$260/ton
1000 Pounds for Food @ $17/cwt	170	170
1000 Pounds for Feed	62	130
Total Revenue	232	300
Minus		
Total Nonland Costs	173	173
Equals		
Contribution for Land, Management, and Overhead	59	127

II. Break-even price needed to cover all nonland costs if yield is 2000 pounds per acre is $173 per ton or $8.65/cwt.

induced by Mexican imports. Mexican growers have a competitive advantage arising from inexpensive labor, which is used to hand sort the beans to ensure premium, uniform quality.

There is a slow learning curve with this crop, as it takes about five years experience to understand fully how to produce quality beans. Production problems include late season rainfall that damages the beans and the need to plow the crop residue after harvest to reduce blight. This plowing can cause problems with wind erosion and soil conservation measures. At the same time, chickpeas face competition for acreage from both traditional and alternative crops.

Consumption of canned garbanzos is on a slight decline. The dried garbanzos do not fit with today's minimum fuss lifestyle. The market channels are controlled by just a few processors, some of whom do not believe a good quality bean can be grown in Nebraska. That prejudice must be overcome. At the same time, the consistency of crop quality must be appraised realistically.

The Window

U.S. chickpea production is in a state of change. The blight problems in Washington and Idaho, coupled with the wilt problems in California, are limiting domestic production. It will be one to five years before blight resistant seed is available to current growing areas. That opens a window of opportunity if Nebraska growers can keep the garbanzo growing areas disease free.

Nebraska growers enjoy a $1/cwt freight cost advantage to Midwest markets. If and when prices increase to make Nebraska beans competitive with Mexican crops, this advantage still will exist. Chickpeas are a dryland crop that can be grown on some idle acres in Nebraska. Land costs for production are cheaper here than in other areas of the U.S.

Chickpeas useful only for animal feed could be used in hog and cattle rations with minimal processing and transportation cost. Moreover, the feed market may become a primary market for some producers as herdsmen looking for least cost inputs begin using more chickpeas.

Chickpeas could be promoted by publicizing new uses in the health food and ethnic food markets. For example, an appeal could be made to health-conscious consumers to eat more garbanzos because eating dried beans may lower cholesterol. Processors could address the ethnic food market by preparing the beans in different sauces or relabeling them to correspond with ethnic perceptions (i.e., selling them under their Italian name, ceci beans, to markets with high concentrations of Italian consumers).

Recommendations

1. Interested producers should obtain another year of production experience on limited acreage to refine production practices and to provide further data to validate two things: that the production estimate of 2000 pounds per acre is a reasonable average and that area growers are correct in their belief that a consistent, high quality chickpea can be produced for the food market.

2. Commercial tests should be undertaken to verify the work done using chickpeas as animal feed. Two important, high value segments in particular should be tested: the 50 percent concentrate ration for beef calves and feeder cattle and the 95 percent chickpea ration for baby pigs. If these feeding trials prove successful, these two market segments alone would offer sufficient economic attractiveness to warrant production on some nonwheat base acres in southwestern Nebraska.

3. The search for alternative crops does not begin or end with garbanzo beans. The search for economic stability in rural regions does not begin or end with the adoption of a single alternative crop, either. Nevertheless, the potential for strengthening a small segment of the Nebraska economy exists with this crop. Chickpeas do offer a higher per acre gross revenue than some traditional crops; they are free of program planting restrictions; and they offer potential economic benefit in two ways: by utilizing area food and feed processors, and by providing lower cost inputs to livestock producers.

This article was written and researched by Ms. Lynn Samsel and Dr. Ray Marquardt. Samsel is a research associate and Marquardt is a professor of marketing and director of the University of Nebraska-Lincoln agribusiness program.

Review and Outlook

National Outlook

In order to know where we are going, we need to know where we are. The public often displays a mistrust for economists because economists often disagree with one another. Although there is common ground on the statistics of where we are, the problem remains of whether the glass is half full or half empty. In this case, the question is whether we are headed for a recession or if can we maintain moderate growth indefinitely. Unfortunately, there is no clear cut answer to this question. Let us look at some of the issues.

Where are we? The best description is that we are in a period of slow, steady growth. We are experiencing the longest post-World War II peacetime expansion, although the recovery came after one of the deepest modern recessions in 1981-82. Growth rates now are moderate and fairly steady in the 3 percent range (see Table A). Many economists believe that moderate steady growth is easier to sustain and in the long run will have advantages over volatile growth rates.

If we were on the verge of a recession, what would be occurring? Classic business cycle analysis says that the basis of

Table A
National Indicators

	Annual		Quarterly (SAAR)	
	1986	1987	1988 I	1988 II
Real GNP (% Change)	2.8	3.4	3.4	3.0
Real Consumption (% Change)	4.3	2.7	4.5	3.0
Housing Starts (Millions)	1.81	1.62	1.48	1.48
Auto Sales, Total (Million of Units)	11.4	10.3	10.8	10.6
Interest Rate (90 Day T-Bill)	5.96	5.82	5.76	6.23
Unemployment Rate	7.0	6.2	5.7	5.4

SAAR: Seasonally adjusted at annual rates
Source: U.S. Bureau of Economic Analysis

a recession is an overheated economy. Evidence of such pressure is reflected in capacity utilization rates in the 82 to 84 percent range. Inventories of raw materials start to fall and prices of raw materials start to inflate, followed by intermediate materials and finished or consumer goods prices. High consumption rates and the inflation of consumer prices cause monetary authorities to react, even to overreact. The money supply is restricted, interest rates rise, the housing market, followed by consumer durable goods—often autos, falls. After enough bad news, business cancels and defers investment plans. The recession deepens until either consumers, investors, or government increases spending.

These classic business cycle arguments would lead us to expect high levels of capacity utilization. The economy is already there. Capacity utilization, as reported by the Federal Reserve, was at 83.8 percent in August. That should mean some increase in inflation. Table II shows little evidence of renewed or raging inflation, especially to anyone who remembers the late 1970s. Nevertheless, there seems to be a slight increase from the low rates of increase of late last year. But the pattern is puzzling—raw materials are inflating slowly and intermediate goods are increasing faster than finished goods.

The Federal Reserve has tightened in recent months. Short-term rates have risen by over one full percentage point in the last two months. Housing starts this year are below last year. The first half of this year saw housing starts at 1.48 million at annual rates, while last year's total housing starts were 1.62 million. Total real dollar consumption grew at 3.0 percent (annual rate) in the second quarter, down from 4.5 percent in the first quarter, but close to the 1987 gain of 2.7 percent.

Theses are mixed signals at best. Moderate, steady growth is continuing with little evidence of recession.

A recent *Wall Street Journal* consensus of 16 economic forecasters confirms continued moderate growth for the remainder of this year. Their forecast calls for real GNP to grow 3.4 percent and 2.9 percent for the third and fourth quarters of this year.

With the large and growing role of the service sector in our economy, does classic business cycle analysis have any relevance to today's economy? A full answer to that question is beyond the scope of this article. Briefly, the issues are as follows: services tend to be a more stable sector of the economy. There are few inventory oscillations in the service sector because inventories are minimal. Therefore, services should dampen the classic manufacturing-based business cycle. Downturns in a service economy likely will come from two sources: external shock, such as an oil crisis, or bad policy, such as a money crunch.

The manufacturing sector still can cause disturbances. It remains to be seen if it alone could cause a recession. A policy-induced recession is a real possibility.

Nebraska Outlook

Even a casual driver along Interstate 80 has noticed that the fall harvest is underway. Milo crops were among the leaders. Farm cash receipts will be coming in the usual highly variable manner.

There is the added complication this year of drought relief loans and payments. Although Nebraska did not suffer as much as other hard hit areas of the Midwest such as eastern Iowa and large parts of Illinois, 18 counties on the north and east edges of the state did qualify for relief loans. Direct drought relief payments will take a while to process and may not show in Nebraska farm income this year. April to September rainfall reports show that parts of Nebraska received above average rainfall. Those farmers with good yield who have managed to lock in the high prices for corn and wheat resulting from the initial USDA announcement of the size of the drought impact on this year's harvest stand to make a handsome profit on their crops.

Table I
Employment in Nebraska

	Revised July 1988	Preliminary Aug. 1988	Aug. % Change vs. Year Ago
Place of Work			
Nonfarm	665,316	666,598	1.3%
Manufacturing	92,582	93,362	3.1
Durables	45,990	46,513	5.7
Nondurables	46,592	46,849	0.6
Mining	1,875	1,848	3.4
Construction	25,711	25,785	-1.6
TCU*	44,257	44,446	2.9
Trade	170,559	171,866	0.7
Wholesale	48,375	48,242	2.3
Retail	122,184	123,624	0.1
FIRE**	48,228	48,342	0.3
Services	150,561	150,959	1.5
Government	131,543	129,990	1.1
Place of Residence			
Civilian Labor Force	818,292	818,528	-0.2
Unemployment Rate	3.4%	3.2%	

* Transportation, Communication, and Utilities
** Finance, Insurance, and Real Estate

Source: Nebraska Department of Labor

Table II
Price Indices

	Aug. 1988	% Change vs. Year Ago	YTD % Change vs. Year Ago
Consumer Price Index - U* (1982-84 = 100)			
All Items	119.0	4.0%	4.0%
Commodities	111.9	3.5	3.4
Services	126.7	4.5	4.5
Producer Price Index (1982 = 100)			
Finished Goods	108.8	2.7	2.1
Intermediate Materials	108.4	5.8	5.4
Crude Materials	97.3	0.8	3.1
Ag Prices Received (1977 = 100)			
Nebraska	152	14.3	10.3
Crops	135	60.7	29.4
Livestock	163	-0.6	3.7
United States	144	13.4	7.4
Crops	136	33.3	15.7
Livestock	152	1.3	1.5

U* = All urban consumers
Source: U.S. Bureau of Labor Statistics

Nebraska retail sales increased in June 10.4 percent from May and 16.2 percent from year ago levels. The auto portion of sales was strong. Because the surge in Nebraska auto sales is partly tied to national rebate promotions and national auto sales in August slipped between promotions, Nebraska auto sales in August should slip when they are reported. Evidence through mid-September suggests a national return to high auto sales levels. Nebraska should follow that trend.

Projecting Nebraska's near future is harder than doing the same for the nation. Two major economic elements for the state's economy have opposite cyclical characteristics.

In Nebraska, the service sector accounted for 18.5 percent of the state's nonagricultural employment in 1987. That sector has been Nebraska's fastest growing employment sector, increasing by 177.8 percent from 1960 to 1987. The service sector is fairly stable over the long run, showing little cyclical behavior. When we add service-like sectors, a total of 82.8 percent of nonagricultural employment is in relatively stable and growing sectors. Those sectors are: transportation, communication, and utilities; wholesale and retail trade; finance, insurance and real estate; and government.

The other major economic force for Nebraska is agriculture, a highly volatile sector. Incomes from farm and farm-related industries vary due to the timing of federal payments, the harvest, decisions by farmers to delay or speed delivery to the market of either cash crops or livestock, export demands for grain and meats, volatility of commodity markets, and weather. All those factors combine to make it difficult to forecast changes in the state's farm income.

J.S.A.

Table III
City Business Indicators
June 1988 Percent Change from Year Ago

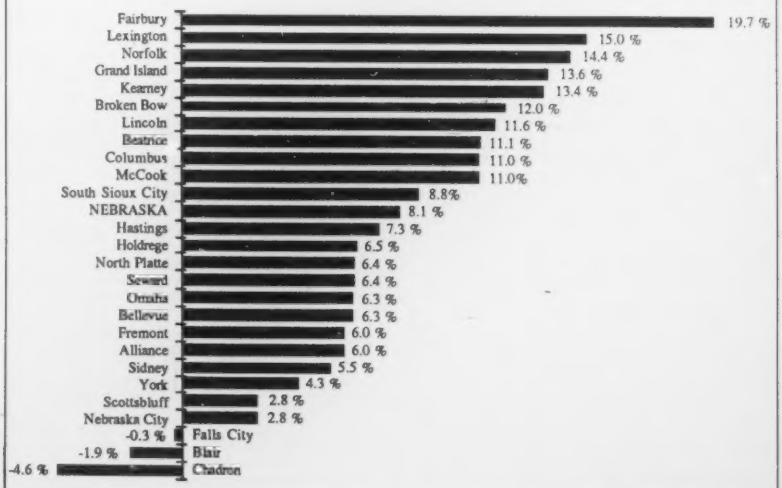
The State and Its Trading Centers	Employment (1)	Building Activity (2)
NEBRASKA	3.2%	16.0%
Alliance	1.4	21.3
Beatrice	3.7	229.6
Bellevue	2.9	2[illegible]
Blair	2.9	-65.5
Broken Bow	6.6	73.6
Chadron	5.6	-78.4
Columbus	6.2	104.2
Fairbury	5.1	2,138.1
Falls City	3.6	9.5
Fremont	2.2	-11.2
Grand Island	1.3	72.3
Hastings	0.4	99.0
Holdrege	4.8	-7.3
Kearney	1.7	113.1
Lexington	2.1	365.3
Lincoln	1.6	28.8
McCook	1.3	391.0
Nebraska City	3.9	-16.0
Norfolk	2.5	13.3
North Platte	0.9	-18.6
Omaha	2.9	-3.9
Scottsbluff/Gering	2.5	-5.2
Seward	1.2	-36.9
Sidney	2.6	9.6
South Sioux City	1.0	45.2
York	3.1	-45.1

(1) As a proxy for city employment, total employment (labor force basis) for the county in which a city is located is used.

(2) Building activity is the value of building permits issued as a spread over an appropriate time period of construction. The U.S. Department of Commerce Composite Cost Index is used to adjust construction activity for price changes.

Sources: Nebraska Department of Labor and reports from private and public agencies.

Figure I
City Business Index
June 1988 Percent Change from Year Ago



Twenty-Sixth Annual Great Plains Federal Tax Institute December 1-2, 1988

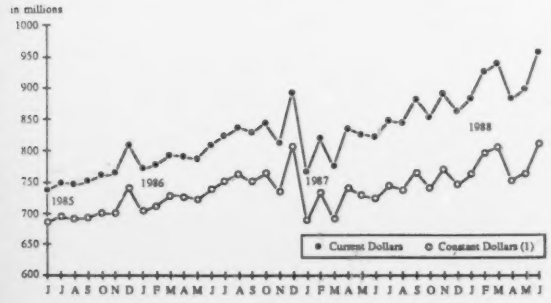
For more information, contact: Department of Conferences and Institutes, Nebraska Center for Continuing Education, University of Nebraska-Lincoln, Lincoln, NE 68583-0929

Table IV
Net Taxable Retail Sales of Nebraska Regions and Cities

Region Number and City (1)	City Sales (2) June 1988 (000s)	City Sales (2) % Change vs. Year Ago	Region Sales (2) June 1988 (000s)	Region Sales (2) % Change vs. Year Ago	YTD % Change vs. Year Ago
NEBRASKA	859,034	16.9%	988,337	16.2%	12.9%
1 Omaha	294,844	15.1	369,888	14.0	9.5
Bellevue	12,517	12.6	*	*	*
Blair	4,417	7.6	*	*	*
2 Lincoln	120,576	25.6	139,570	23.1	14.8
3 South Sioux City	4,338	18.4	6,324	11.1	25.9
4 Nebraska City	3,797	7.5	18,392	10.1	10.2
6 Fremont	14,572	16.1	27,045	11.3	16.7
West Point	2,448	23.2	*	*	*
7 Falls City	2,246	-2.2	8,879	5.0	8.4
8 Seward	4,050	22.0	14,787	15.2	13.3
York	6,125	16.5	14,562	18.9	13.4
10 Columbus	14,055	14.2	25,925	16.7	16.7
11 Norfolk	16,862	32.6	32,053	24.8	19.0
Wayne	2,617	16.8	*	*	*
12 Grand Island	31,238	27.2	44,553	21.0	17.4
13 Hastings	14,741	11.9	24,849	12.0	11.5
14 Beatrice	7,383	11.7	17,602	11.5	12.0
Fairbury	2,665	8.7	*	*	*
15 Kearney	17,087	24.0	25,101	19.2	20.7
16 Lexington	5,399	18.6	16,274	16.3	22.3
17 Holdrege	4,328	14.2	8,201	11.7	14.9
18 North Platte	15,597	19.4	19,867	19.3	18.7
19 Ogallala	6,141	32.7	12,503	22.7	14.5
20 McCook	7,111	9.6	10,611	7.0	20.6
21 Sidney	3,819	12.2	8,238	13.9	11.1
Kimball	1,957	10.1	*	*	*
22 Scottsbluff/Gering	16,187	7.7	23,593	7.6	7.6
23 Alliance	5,241	13.3	14,920	16.9	13.6
Chadron	2,943	3.9	*	*	*
24 O'Neill	4,046	32.1	14,564	24.3	17.8
Valentine	2,904	17.4	*	*	*
25 Hartington	1,431	9.1	8,430	11.3	10.8
26 Broken Bow	3,195	18.1	12,043	16.5	22.8

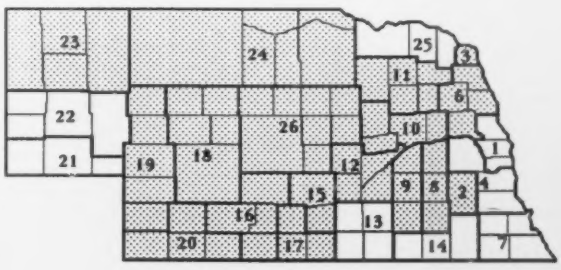
(1) See region map.
(2) Sales on which sales taxes are collected by retailers located in the state. Region totals include motor vehicle sales.
* Within an already designated region.
Compiled from data provided by the Nebraska Department of Revenue

Figure II
Nebraska Net Taxable Retail Sales
(Seasonally Adjusted)



(1) The Consumer Price Index (1982-84 = 100) is used to deflate current dollars into constant dollars

Figure III
Region Sales Pattern
YTD as Percent Change from Year Ago



Shaded areas are those with sales gains above the state average.

BB Scoreboard

Percent of same month one year ago

	State	Metro+	Nonmetro
Motor Vehicle Sales (June) Constant $	11.4%	11.2%	11.6%
Nonmotor Vehicle Sales (Aug) Constant $	13.4%	16.7%	8.6%
Building Activity (June) Constant $	16.0%	7.9%	32.0%
Employment (Aug)	1.0%	2.5%	-0.6%
Unemployment Rate* (Aug)	3.2%	3.4%	3.2%

+Omaha and Lincoln
*Unemployment is this month's rate, not a percent change from year ago

Bureau Personnel Notes:

John Austin & Merlin Erickson

The Bureau is proud to introduce John S. Austin, statistical coordinator, and Dr. Merlin W. Erickson, research associate. Merlin joined the Bureau staff on August 1, and John began September 1.

Fresh from graduate studies, John began his professional career as an instructor at the University of Wisconsin-Oshkosh teaching principles of economics, statistics, and quantitative methods. John then joined the Federal Reserve Board where he was assistant to one of the Board's seven governors. Next he joined Chase Econometrics as director of Chase's industrial price forecasting service. John has worked for two railroads: Union Pacific and Burlington Northern. John's last position was director of business economics at Burlington Northern.

John will be a regular writer for **Business in Nebraska**'s "Review and Outlook" series. John also will write several lead articles.

Merlin served with USDA for 24 years working on water and related land issues. Merlin held a number of positions at USDA such as the Economic Research Service representative to the Water Resources Committee of the Great Plains Agricultural Council, economic consultant to the Nebraska Natural Resources Commission for the Water and Water Rights Transfer study, and Economic Research Service representative to the Nebraska Food and Agricultural Council. Merlin has a long list of publications that reflect his work.

Merlin is a native of Cuming County where he has farmed in the past. Merlin currently is assisting in the study of two agricultural topics: the economic importance of irrigation in Nebraska and the economic impact of the 1988 drought on the state. Merlin will help prepare research summaries for **Business in Nebraska**. Both studies are expected to be completed by the end of the year.In addition to Merlin's research responsibilities, he assumes a lead role in answering inquiries on Nebraska economic and demographic statistics.

F.C.L.

Business in Nebraska

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